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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,852	05/26/2006	Fumito Takeuchi	1000023-000108	5655
21839 7590 07/02/2009 BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			EXAMINER SELLERS, ROBERT E	
			ART UNIT	PAPER NUMBER
			1796	
			NOTIFICATION DATE	DELIVERY MODE
			07/02/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/580,852	<b>Applicant(s)</b> TAKEUCHI ET AL.	
	<b>Examiner</b> ROBERT SELLERS	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 4-7,9,10,12,13,15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8, 11 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

Claims 6, 7, 9, 10, 12, 13, 15 and 16 are drawn to inventions nonelected with traverse in the non-Final rejection mailed October 16, 2008. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144 and MPEP § 821.01). Claims 4 and 5 are withdrawn as directed to the non-elected presence of the partially esterified epoxy resin (6).

The text section 103(a) of Title 35, U.S. Code not included in this action can be found in the non-Final rejection.

Claims 1-3, 8, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over PCT Publication No. 2004/027502 as represented by Miyawaki et al. Publication No. 2006/0009579 in view of Irving et al. Patent No. 4,836,878 and Slocki et al. Patent No. 4,383,090.

The rejection is maintained for the reasons of record set forth in the previous Office actions. The arguments filed June 2, 2009 have been considered but are unpersuasive.

1. Example 1 (described on pages 55-56 of the specification wherein the components are identified on pages 58-59) is compared with Comparative Example 1 (described on page 56) in Table 1 on pages 57-58 wherein the tested properties are presented in Table 2 on page 60, and the partially esterified epoxy resin (6) of claims 4 and 5 is absent.

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Example 4 is compared with the Additional Comparative Example in the declaration filed June 2, 2009 in Tables 1 and 2 of the specification and Tables 1-1 and 2-1 of the declaration wherein the partially esterified epoxy resin is present.

2. The evidence is not commensurate in scope with the claims since the testing of a single species of trimethylolpropane tris(3-mercaptopropionate) (page 59, compound (5)) at a single concentration of 1 part by weight per 100 parts by weight of the composition (phr) does not establish the criticality of the claimed range of three orders of magnitude lower at 0.001 to 5.0 phr for the myriad species embraced by claimed polythiol (5) disclosed on page 16, line 18 to page 17, line 21 of the specification.

3. Miyawaki et al. on page 10, Example 1) shows a blend of Amicure VDH-J and Curezol 2E4MZ-A which is the identical species of latent epoxy curing agent (3) as that used in the instant examples as described on page 58, line 14 to page 59, line 3.

This is a separate component from the teachings of Irving et al. and Slocki et al. of utilizing a polymercaptan curing agent such as an ester of 2- or 3-mercaptopropionic acid and trimethylolpropane (Irving et al., col. 10, lines 15-21) which cures faster at room temperature as acknowledged in Slocki et al. in column 1, lines 43-45.

4. It would have been obvious to combine the latent epoxy curing agent of Miyawaki et al. with the polymercaptan of Irving et al. and Slocki et al. to provide a degree of curing at room temperature followed by a complete curing at elevated temperature.

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5. Slocki et al. (col. 3, lines 26-30 espouses as little as about 0.05 equivalent of mercaptan active hydrogen per equivalents of epoxide and acrylate. Irving et al. in column 10, lines 47-49 teaches typically from 0.01 to 0.5 part by weight of curing agent per part of epoxide resin which converts to from 0.25 to 12.5 parts by weight when 25 parts by weight of epoxy resin is present; from 0.05 to 2.5 parts by weight with 5 parts by weight of epoxide resin, or from 0.2 to 10 parts by weight with 20 parts by weight epoxide resin which are the levels of epoxy resin in the instant examples. Accordingly, the amount of polymercaptan in Irving et al. is embraced by or embraces the claimed parameters and the mere testing of a single concentration of 1 phr does not distinguish the claimed proportion range.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

(571) 272-1093 (Fax No. (571)-273-8300)  
Monday to Friday, 9:30 to 6:00

/Robert Sellers/  
Primary Examiner Division 1796